TABLE CS-3 Second Hand Store ACM Removal and Restoration

COST ESTIMATE SUMMARY

Location: Libby, Montana Date: April 29, 2003								<u> </u>
CAPITAL COSTS:								
				UNIT				
DESCRIPTION	QTY		UNIT	COST	•	TOTAL	NOTES	REFERENC
ACM Personal Protective Equipment		1	LS	\$ 4,291	\$	4,291	Based on duration of VCI and ACM removal	CW2-1
Portable Decontamination Facility		1	EA	\$ 1,345	\$	1,345		CW2-2
Containment System and Set-up		1	LS	\$ 6,009	\$	6,009	Based on building size	CW2-3
Inventory Cleaning		1	LS	\$ 19,648	\$	19,648		CW2-4
VCI Bulk Removal		1	LS	\$ 15,932	\$	15,932	Based on size of the walls contaminated with VCI	CW2-5
Cleaning and Restoration		1	LS	\$ 9,967	\$	9,967		CW2-6
Asbestos-Contaminated Soil Removal		1	LS	\$ 10,541	\$	10,541	Based on soil contaminated volume	CW2-7
Transportation and Disposal		1	LS	\$ 10,800		10,800	Based on the volume of VCI and ACM	CW2-8
Site Breakdown		1	L\$	\$ 4,985	\$	4,985	•	CW2-9
SUBTOTAL				+	\$	83,518		

Capital Cost Sub-Element ACM Personal Protective Equipment

Libby Asbestos

Location: Libby, Montana Phase: Base Year: 2003

Prepared By:

A. Rassas

Date: 4/28/2003

Checked By: B. Cotton Date: 5/2/2003

Work Statement

This sub-element includes Personal Protective Equipment (PPE) and two-way communication recities needed for the duration of VCI bulk removal and disbested contaminated soil removal, cleaning and restoration.

Cost Anabala:

Personal Protective Equipment and Respirator

DESCRIPTION	ΦTY	DelT(S)	HPF	LABOR	LABOR	£0UP	ADJ EGMP	MATL	OTHER	UNMOD UC	UNIMOD LIC	EF	AF	UNBURLIC	PC OH	PC PF	BUR LIC	CHATION	COMMENTS
Communications																			
Two-Way Radios	7	EA	1.00	\$0.00	\$0.00	\$0.00	\$0.00	\$80.00	\$0.00	\$60.00	\$420.00	1.04	1 13	\$491.40	15%	8%	\$810	E 33-01-0420	
Level C PPE														· ·			_	_	
Disposable Coveralls (tyvel/polycosled)	80	EA	1.00	\$0.00	\$0.00	\$0.00	\$0.00	\$5.69	\$0.00	\$5.69	\$471.20	1.04	1.13	\$\$51.30	15%	5	\$886	E 33-01-0424	
Disposable Boot Cover (Tyrek)		EA	1.00	\$0,00	\$0.00	\$0.00	\$0.00	\$1,13	,\$0.00	\$1.13	\$90.40	1.04	1.13	\$106.77	15%	8%	\$131	E_ 33-01-0421	
Half-Face Perspirator	5.	EA	100	\$0.00	\$0.00	\$0.00	\$0.00	\$49.62	\$0.00	\$49.62	\$248,10	1.04	1.13	\$290.28	15%	8%	\$361 _	E 33-01-0435	
Cartridges	80	_EA .	1.00	\$0.00	\$0.00	\$0.00	\$0.00	12094	\$0.00	\$20 94	\$1,675.20	104	1.13	\$1,960 98	15%	6%	\$2,434	E 33-01-0435	
Disposable Gloves, later, pair	80	EA	1.00	\$0.00	\$0,00	\$0.00	\$0.00	\$0.21	\$0.00	\$0.21	\$18.80	1.03	1.13	\$19.49	15%	6%	. \$24	R 33-01-0423	
Safety goggles, reveable	5	EA	1,00	\$0.00	\$0.00	\$0.00	\$0.00	<u>\$6</u> ,38	\$0.00	\$8.38	\$31.90	1.03	1 13	\$37.00	15%	6%	\$40	R 23-01-0427	
						,								TOT	AL UNIT C	OST:	34,281		·

Area factor as from Exhibit 6-2 of "A Guide to Developing and Documenting Cost Estimates During the Feesbelly Study", EPA 2000.

Exceletion factor is index from being year of millmate divided by index from year of cost data.

Establish indices are from Exhabit B-1 of "A Guide to Developing and Documenting Cost Estimates During the Feastfairty Study", EPA 2000, and http://www.ehr.com/features/confsco/costindenses/default.asp

HTRW productivity factor is from Eurobia B-3 or B-4 of "A Guide to Developing and Documenting Cost Estimates During the Feasibility Study", EPA 2000

Source of Cost Date; NA - Not Applicable - costs are from previous work or vendor quals

For citation references, the following sources apply:

O - ECHOS Unit Cost Book 1995; E - ECHOS Unit Cost Book 2000; C - Maana CostWarks 2000; F - Means Fist. Const. Cost Data 1995; R - Malane Environmental Remodestion Cost Data 2001

P - Based on Previous Work by COM Federal; V - Vendor Quote; A - Allowance Assumed

L - Average Professional Lebor Rates for 2002 (Average Rates Complete from Various State/Federal Public Contract Sources)

Cost Adjustment Checklist:

FACTOR H&S Productivity (lebor and equipment only)

Escalation to Base Year

Arque Cost Factor An AF of 1,13 is used for Montana, except an AF of 1 00 (national unmodified average) is used for local varidor quotes.

Subcontractor Overhead and Profit it is assumed that Subcontractor OSP is either included in the PC OSP or has been factored into vendor quotes or previous work,

Prime Contractor Overhead and Profit

Field work will be in Level "C" PPE. An HPF of 0.95 in used for labor and equipment unit costs that occur in contaminated areas

2001 cost sources are escalated by 3% to 2003 costs (EF=1.03), 2000 cost sources - 4% (EF=1.04), 1998 cost sources - 9% (EF=1.09), and 1995 cost sources - 17% (EF=1.17).

It is essumed that home office OH is 5%, and field office OH is 10%. Profit of 8% is used for the Phine Contractor.

Abbreviations:

ÖTY austity EA each

EQUIP equipment MATL material

HPF HTRW productivity factor

ADJ LABOR edjusted tabor for HFP

ADJ EQUIP adjusted equipment for HFP

UNIMOD UC unmodified unit cost UNMOD LIC unmodified line item cost

EF excelation lessor

AF area factor

UNBURIUC unburdened time item cost

PC OH prime contractor overhead

PC PF prime constructor profit

BUR LtC burdenes into item cost

										TABLE	E CW2-2										
apital Cost Sub-Element																				_	
econtamination Facility																					
ite: Libby Asbestos															Prepared	i By:	A. Rassas	1	Date: 4/28/2003		
ocation: Libby, Montana																					
hase:															Checked	Bv:	B. Cotton		Date: 5/2/2003		
lase Year: 2003																		 			
fork Statement: his sub-element includes portable decontamination fedil	ly cost for t	he decontac	mination o	i employees,	materials. a	ind equipmer	i for the dure	tion of esbesia	is removal.												
ost Analysis: ortable Decontamination Facility																					
DESCRIPTION	QTY	UNIT(S)	HIPE	LABOR	LABOR	EQUIP	ADJ EQUIP	MATL.	OTHER	NAMOD UC	UMMOD LIC	€F	AF	URISUR LIC	РСОН	PC PF	BUR LIC	CITATION		COMMENTS	
									•												
et Up Portable Asbestos Decontamination Facility Cost		EA.	1.00	\$56 44	\$59.44	\$13.09	\$13.09	\$618.39	\$0.00	\$891.81	\$891.81	1.17	1,13	\$200.30	15%	8%	\$1,117	O 21134045			
	1		1	i		i				1		Į.		1	1 1				1		
lemove Portable Aubeston Decontamination Post	l .	l					·							1	l 1				- 1		
batement Cleanup	1 1	EA	1_1.00	\$89.18	\$89.16	\$20.98	\$20.98	\$30.92	\$0.00	\$141.08	\$141.08	1.17	1.13		ALUNITO		\$228 \$1,345	C 21134076			
														10	AL UNIT O		yintlens:	l			
<u>lotes;</u> vee factor to from Exhibit B-2 of "A Guide to Developing.		amina Cam	· Calmaa	. Dreens like i	Coardin S	huber 604 %	200							0.00	quentity	200		EA each			
scalation factor is index from bese year of estimate divid					-	407.6-42	~~·								dominated (<u></u>			
scalation indices are from Exhibit 8-1 of "A Guide to De					rico tra Fee	aibility Straty	FPA 2000.	and hits://www	er comb	where/conf co	/rangi reiname/defa	utt aver			material						
ITRW productivity factor is from Exhibit 8-3 or 8-4 of "A									,,							ductivity fect	or				
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				•		•								ADJ LABOR	وا المخسوات	bor for HFP					
ource of Cost Date;														ADJ EQUIP	estuded o	pulpment for	HEP				
IA - Not Applicable - costs are from previous work or ver	dor quote													UNMOD UC	unmodified	und coal					
or citation references, the following sources apply:														UNMODILIC	unmodified	(ine älem co	#				
) - ECHOS Unit Cost Book 1988; E - ECHOS Unit Cost (300A 2000;	C - Means	CostWork	2000; F · M	Isana Fac C	onetr Cost (lgia 1996; R.	- Means Enviro	nmental Re	emediation Cos	d Data 2001			EF	escalation	façter .					
* - Based on Previous Work by CDM Federal; V - Vendo	Quote. A -	Allowence	Assumed											A.F	حائبها ببوت						
- Average Professional Labor Rates for 2002 (Average)	Rates Comp	palaci trom V	/wine 51	te/Federal P	ublic Contra	ci Sources)								UNBUR LIC							
																racior overh	ead .				
cost Advantment Checklist:																racior profit					
ACTOR	NOTES.													BUR LIC	burdened t	ne item cost					
488 Productivity (labor and equipment only)										conteminated					-						
Excelsion to Base Year											7% (EF=1,00), and	I MAG CO		0 - 4179 (EF#1 1	"						
Vree Cost Fector						-		rage) is used i													
Subcontractor Overhead and Profit										oles ar previous dunatur	WOIK.										
Yime Contractor Overheed and Profit	4 19 8650	LANC TANK INC	MARK COLLEGE	UPI 0375. #	NO THEMS COLICE	OF 18 10%.	Librari Or Gary	is used for the	HANNING COM	wactor.											

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Capital Cost Sub-Element

Building Containment and Set-up

She: Libby Asbestos Location: Libby, Montana

Prepared By: Checked By:

A. Rassas

B. Cotton

Date: 4/28/2003 Date: 5/2/2003

Phase: Base Year: 2003

Work Statement:

This sub-element includes assup at field location and contempent of the building by spaling all oparings and providing regative ar pressure

Cost Analysis:

Building Containment and Set-up (2.5 days)

_																	_			
				_			NO.					1								
DESCRIPTION	aty	UNUT(S)	HPF	LABOR	LABOR	EQUIP	EGUAP	MATL	OTHER	UNMOD UC	UNMOD LIC	EF	AF	UNBURLIC	PC OH_	PC PF	BURLIC		CITATION _	COMMENTS
Seal all openings with polyethylene sheeting	310	뚕	0.55	\$0.00	\$0.00	\$0.00	\$000	\$0.10	\$3.00	\$0,10	\$31.02	1.03	1.13	\$35.00	15%_	6%	\$45	R	25 01 0210	Includes material cost only
Set up regative eir machine, 1000-2000CFM unit. 25 KCF							1									_				
foom volume	10	EA	1.00	\$59 27	\$59.27	\$0.94	\$0.94	\$309.20	\$0.00	\$309.40	\$3,694,04	1,17	1.13	\$4,802.25	15%	6%	\$5,884	<u> </u>	21134049	<u></u>
4 laborers - full time	60	HRS	1.00	\$31.05	\$31,05	\$0.00	\$900	\$0.00	\$0.00	\$31.05	\$2,484 00	104	_1.13	\$2,906.26	16%	6%	\$3,610	C.	QwwA-11	
l foreman - itali (une	20	HRS	100	\$31.66	\$31,55	\$0.00	\$0.00	\$0.00	\$0.00	\$31.55	\$831.00	1.04	_1.13	\$738 27	15%	6%	\$917	C	C9W A-11	
1 sita Manager -1/2 time	10	HRS	1,00	\$31.55	\$31,56	\$0.00	\$0,00	\$0.00	\$0.00	\$31.55	\$315.50	1,04	_1.13	\$369 14	15%	ť	\$450	С	Crew A-11	
														701	AL WAT C	05Y:	\$0,000			

Area factor to from Exhibit 8-2 of "A Guide to Developing and Documenting Cost Estimates During the Feasibility Study". EPA 2000.

Exceletion factor is linder from base year of estimate divided by index from year of cost data

Excelletion incloses are from Early's B-1 of 'A Guide to Geneloping and Documenting Cost Estimates During the Festibility Study', EPA 2000, and http://www.ery.com/festures/contect/indexes/default.asp

HTRW productivity factor is from Exhibit B-3 or B-4 of *A Guide to Developing and Documenting Cost Estimates Dunng the Fescibility Study*, EPA 2000

Source of Cost Date:

NA - Not Applicable - costs are from previous work or vensor quote

For criation references, the following sources apply:

O - ECHOS Una Cost Book 1998; E - ECHOS Unit Cost Book 2000; C - Meane CostWorks 2000; F - Meane Fast, Coraix, Cost Data 1998; R - Meane Environmental Remediation Cost Data 2001

- Based on Previous Work by CDM Federal; V - Vendor Quote; A - Allowance Assumed

- Average Professional Labor Rates for 2002 (Average Rates Compiled from Various State/Federal Public Contract Sources) NOTES:

Cost Advetment Checklist: FACTOR:

Field work will be in Level "C" PPE. An HPF of 0,96 is used for labor and equipment unit costs that occur in contaminated areas HES Productivity (labor and equipment only)

Excelution to flame Year 2001 cost sources are escalated by 3% to 2003 costs (EF=1.03), 2000 cost sources - 4% (EF=1.04), 1995 cost sources - 9% (EF=1.09), and 1995 cost sources - 17% (EF=1 17).

An AF of 1,13 is used for Montana, except an AF of 1,00 (national unmodified average) is used for local vendor quotes. Area Cost Factor

It is assumed that Subcontractor D&P is either included in the PC Q&P or free been factored into vendor quotes or previous work. Subcontractor Overhead and Profit

rime Contractor Overhead and Profit It is assumed that home office OH is 5%, and field office OH is 10%. Profit of 5% is used for the Prime Contractor. Abbreviations:

EA each

CITY quantity EQUIP equipment

MATL material

HPF HTRW productivity factor

ADJ LABOR adjusted labor for HFP

ADJ EQUIP adjusted equipment for HFP

UNMODIUC unmodified unit cost UNMOD LIC usmodified (me item cost

EF excelation factor

AF area factor

UNBURIER unburdened line item cost

PC OH prime contractor overhead PC PF prime contractor profil

BURILIC burdened line dem cost

TABLE CW2-4 Capital Cost Sub-Element Inventory Cleaning Libby Ashestos Prepared By: A. Rassas Date: 4/28/2003 Location: Libby, Montana Phase: Checked By: R Cotton Date: 5/2/2003 Basa Year: 2003 Work Statement This sub-element includes HEPA vacuum and wat cleaning of store inversory, boxing and esoning inventory, and replacement of inversory following remediation. Cost Analysis: nventory Cleaning (7 days) UNDALORD UC QTY HPF LABOR EQUIP EOURP MATL OTHER UNMODIUC Œ AF UNIBURIUS PC OH PC PF CITATION DESCRIPTION UNIT(8) LABOR COMMENTS 1.17 1.13 \$171.66 \$132.04 \$213 10029004 Includes equipment cost only. HEPA Vacuum and Wet Clean of impriory 5,160 SF 9 \$0.00 80.00 \$0.01 \$0.01 \$0.01 \$0.00 \$0.03 (576 8% Labor for inventory cleaning, comoval and replacement (\$31.05 \$31.06 \$0.00 \$0.00 \$10,432.80 Crew A-11 laborers for ? days) Labor for inventory cleaning, removal and replacement (foremen for 7 days) \$31.56 \$0.00 \$1,786.80 \$2,087.18 望.587 Crew A-11 Labor for inventory deparing, removal and replacement (1 \$34.55 \$0.00 \$0.00 \$0.00 \$0.00 \$31.58 5883 40 \$1,033,58 \$1,284 Crow A-11 site manager for 3.5 days) Storage boxes, 16" x 6", rant par month - assistance 4 boxes \$0.00 \$0.00 50.00 \$0.00 \$70.00 \$70.00 \$260 00 \$341 60 15% 6% \$424 015 904 1250 TOTAL UNIT COST: \$19,048 Altered steers: Areas factor to from Exhibit 8-7 of "A Guide to Developing and Documenting Cost Estimates Ourning the Feesibility Shaby". EPA 2000 CITY quantity EA each Exculation factor is index from base year of estimate divided by index from year of cost date. EQUIP equipment Excitation indices are from Exhibit 6-1 of "A Guide to Developing and Decumenting Cost Estimates During the Fessibility Study", EPA 2000, and http://www.em.com/festivestronteco/costinde.es/relative MATL material HTRAY productivity factor is from Establis B-3 or B-4 of "A Guide to Developing and Documenting Cost Estimates During the Feasibility Study", EPA 2000 HPF HTRW productivity factor ADJ LABOR adjusted labor for HFP ADJ EQUIP adjusted equipment for HFP Source of Cost Date; LINKAGO LIC unmodified unit cost NA - Not Applicable - coess are from previous work or vendor quote For citation references, the following sources apply: UNMODIUC unmodified time item cost O - ECHIOS Unit Cost Book 1996: E - ECHIOS Unit Cost Book 2000; C - Mauria Cost/Works 2000; F - Means Fac, Constr. Cost Data 1996: R - Miseria Environmental Remediation Cost Data 2001 EF excelsion factor AF area factor . Reset on Previous Work by CDM Federal: V - Vendor Outlie, A - Allowance Assumed . Average Professional Labor Rates for 2002 (Average Rates Compiled from Various State/Federal Public Contract Sources) UNBURILIC unburdened line item cost PC OH prime contractor overhead PC PF prime contractor profit Cost Adjustment Checklist: SUR LIC burdened line from cost FACTOR: H&S Productivity (labor and equipment only) Field work will be in Level "C" PPE. An HPF of 0.95 is used for labor and equipment unit costs that occur in contaminated areas Excelation to Base Year 2001 cost sources are excelleted by 3% to 2003 costs (EF=1.00), 2000 cost sources - 4% (EF=1.04), 1995 cost sources - 9% (EF=1.04), and 1996 cost sources - 17% (EF=1.17).

Area Cost Fector

Subcontractor Overhead and Profit

An AF of 1.13 is used for Montana, except an AF of 1.00 (national unmodified everage) is used for local version quotes.

It is assumed that Subcontractor Q&P is either included in the PC Q&P or has been factored into vendor quotes or previous work.

It is assumed that home office OH is 5%, and field office OH is 10%. Profit of 6% is used for the Prime Contractor. Prime Contractor Overhead and Profit

Capital Cost Sub-Element

VCI Bulk Removal

Libby Asbestos

Location: Libby, Montana

Phase: Base Year: 2003

Prepared By:

A. Rassas

Date: 4/26/2003

Checked By:

B. Cotton

Date: 5/2/2003

Work Statement:

This sub-element includes the removal of vermiculite containing insulation by removing tapboards and vacuuming material from interior of wall

Cost Analysis:

VCI Bulk Removal (5 days)

					AQJ		Ę] -!									
DESCRIPTION	QTY	(8)Teru	HPF	LABOR	LABOR	EQUIP	EQUIP	WATL	OTHER	UNMOD UC	UMMOD LIC	완	¥	UNBURLIC	PCOH	PCPF	BURLUC	CITATION	COMMENTS
Visitaum Truck and driver	8	HRS	1.00	\$40.00	\$40.00	\$80,00	\$80.00	\$0.00	\$0.00	\$120.00	\$4,600.00	1.00	1.00	\$4,800.00	15%	É	\$5,962	٥	
Labor for VCI removal (4 laborere)	180	HRS	1.00	\$31.05	\$31.05	\$0.00	\$0.00	\$0.00	\$0.00	\$31.05	\$4,966.00	104	1.13	\$5,812.68	15%	876	\$7,219	C Crew A-11	
Lebor for VCI removal (1 foreman)	40	HRS	1.00	\$31.55	\$31.55	\$0.00	\$0.00	\$0.00	\$0.00	\$31.55	\$1,262,00	104	1.13	\$1,478,54	15%	6	\$1,834	C Crew A-11	
Labor for VCt removal (1 atte manager - 1/2 time)	20	HRS	1.00	\$31 56	\$31.56	\$0.00	\$0.00	\$0.00	\$0.00	\$31.66	\$831.00	1.04	1.13	\$738.27	15%	6	\$917	C Crew A-11	
														101	AL UNIT C	OST:	\$15,832		

TABLE CW2-5

Area factor is from Exhibit 9-2 of "A Guide to Developing and Documenting Cost Estimates During the Feesibility Study", EPA 2000.

Excelation factor is index from base year of estimate divided by index from year of cost data.

Escalation indices are from Earthix 8-1 or "A Guida to Developing and Documenting Cost Estimates During the Feasibility Study", EPA 2000, and http://www.enr.com/feasinete/ac/costindexas/default.asp

HTFRW productivity factor is from Exhibit B-3 or B-4 of *A Guide to Developing and Documenting Cost Estimates During the Feasibility Study*, EPA 2000

Source of Cost Date; NA - Not Applicable - costs are from previous work or vendor quote

For citation references, the following sources apply:

O - ECHOS Ump Cost Book 1985; E - ECHOS Unit Cost Book 2000; C - Maans CostWorks 2000; F - Maans Fac, Corety, Cost Oals 1998, R - Maans Environmental Remediation Cost Oals 2001

P - Barad on Previous Work by CDM Federal; V - Vendor Quote; A - Allowance Assumed

- Average Professional Labor Rates for 2002 (Average Rates Compiled from Verious State/Federal Public Contract Sources)

Cost Adjustment Checkflet; FACTOR:

H&S Productivity (labor and equipment only)

Excelution to Boss Year

Area Cost Factor

Subcontractor Overhead and Profit

Field work will be in Lavel *C* PPE. An HPF of 0.95 is used for tabor and equipment unit costs that occur in contaminated areas.

2001 cost sources are escalated by 3% to 2000 costs (EF=1,03), 2000 cost sources - 4% (EF=1,04), 1998 cost sources - 5% (EF=1,09), and 1998 cost sources - 17% (EF=1,17).

An AF of 1,13 is used for Montens, except on AF of 1 00 (notional unmodified average) is used for local vendor quotes.

It is essumed that Subcontractor O&P is either included in the PC O&P or has been factored into vendor quotes or previous work

It is assumed that home office OH is 5%, and field office OH is 10%. Profit of 6% is used for the Prime Contractor. rime Contractor Overhead and Ptofit

Abbreviations;

EA each

QTY quantity EQUIP equipment

MATL material

HEFF HTRIW productivity factor

ADJ LABOR adjusted labor for HFP

ADJ EQUIP eduated equipment for HFP

UNMOD UC unmodified unit cost

UNMOD LIC unmodified line item cost EF occupation factor

AF ere lector

UNBUR LIC unburdance time item cost

PC OH prime contractor overhead

PC PF prime contractor croft

BUR UC burdered line item cost

Capital Cost Sub-Element

Cleaning and Restoration Libby Asbestos

Prepared By:

A. Rassas B. Cotton

Date: 4/28/2003

Location: Libby, Montana

Checked By:

Date: 5/2/2003

Phase: Base Year: 2003

Mark Statement

This sub-element includes HEPA vacuum and fine brush of Boore and wate, application of encapsulant, installation of new insulation and replacement of distributing walls.

Cost Anatysis:

Detail cleaning, encapsutation and wall restoration (4 days).

DESCRIPTION	QTY	UNIT(9)	HPF	LABOR	LAGOR	EQUIP	ADJ EQUEP	MATL	OTHER	URBMOD UC	URANGO LIC	EF_	_AF_	UNBURLIC	PC OH	PC PF	BUR LIC		CITATION	COMMENTS
Tine Clean exposed autobraic, vacuum auriaces, fine augh	1,828	SF	0.66	\$0.00	\$0.00	\$0.13	\$0.24	\$0.00	\$0.00	\$0.24	3384 60	1 63	1.13	\$448.37	15%_	8%	\$564	R	25 01 0509	Includes equipment costs only.
TEPA Versum and Wat Clean first floor flooring	5,180	SF	0.95	\$0.00	\$0.00	\$0.01	\$0.01	\$0.01	\$0.00	\$0.03	\$132.04	1,17	1.13	\$171.68	15%	6%	\$213	o	18029004	Includes equipment and material costs only.
Encapsulation with sogiants, walls	1,626	SF	0.56	\$0.00	\$0.00	\$0.04	\$0.07	\$0.25	\$0.00	\$0,33	\$541.68	1.03	1 13	\$828 35	1,5%	6%	\$780	Ŕ	25 01 0701	Includes equipment and meterial costs only.
(resultation (fiberplass, 3 1/2" thick, 23" wide)	1,626	SF	0.55	\$0 00	\$0.00	\$0.00	\$0.00	\$0.10	\$0.00	\$0.18	\$293.04	1.09	1 13	\$357 61	15%	6%	\$444	F	072 118 0100	Inicudes material cost only.
Labor for entire duration of cleaning, encapsulation and restoration (4 taborers for 4 days)	126	HRS	1.00	\$31.06	\$31.05	\$0.00	\$0.00	\$0.00	\$0.00	\$31.06	\$3,974.40	1.04	1.13	\$4,860.06	15%	. 6%	\$6,775	ç	Crew A-11	
Labor for entire duration of cleaning, encapsulation and restatation (1 foremen for 4 days)	32	HRS	1.00	\$31.55	\$31,66	\$0.00	\$0.00	\$0.00	\$0.00	\$31.55	\$1,009.60	1.04	1 13	\$1,181 23	16%	6%	\$1,487	c	Crew A-11	
Labor for entire duration of cleaning, encapsulation and restoration (1 falls manager for 2 days)	16	HRS	1.00	\$31 56	\$31.55	\$0.00	\$0.00	\$0.00	\$0.00	\$31.66	\$504 80	1,04	1.13	\$590.62	15%_	6%	\$734	ç	<u> Οτογγ Α</u> -11	
														TOT	AL COURT C	:TROX	\$9.96T	Γ^{-}		<u>-</u>

Area factor is from Europii B-2 of "A Guide to Developing and Documenting Cost Estimates Stating the Feasibility Study", EPA 2000.

Escatetion factor is index from bees your of estimate divided by index from year of cost data.

Escalation indices are from Exhibit B-1 of "A Guide to Developing and Documenting Cost Estimates During the Feesibary Study", EPA 2000, and http://www.enr.com/feetures/confecotoostindexes/default.asp

HTTRW productivity fusion is from Exhibit 8-3 or 8-4 of "A Guide to Developing and Documenting Cost Estimates During the Feesbility Study". EPA 2000

Source of Cost Date:

NA - Not Applicable - costs are from previous work or vendor quote

For citation references, the following sources apply:

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- Based on Previous Work by CDM Federal; V - Vendor Quote; A - Allowance Assumed

- Average Protessional Labor Rates for 2002 (Average Rates Compiled from Various State/Federal Public Contract Sources)

Cost Adjustment Checklist:

FACTOR

H&S Productivity (lebor and equipment offly)

Escalation to Sass Year

Arma Cost Factor

abcontractor Overteed and Profit rime Contractor Overhead and Profit

Field work will be in Level "C" PPE. An HPF of 0.95 is used for tabor and equipment until costs that occur in contaminated areas

2001 cost sources are equalated by 3% to 2003 costs (EF=1.03), 2000 cost sources - 4% (EF=1.04), 1998 cost sources - 9% (EF=1.04), and 1998 cost sources - 17% (EF=1.17).

An AF of (.13 is used for Montana, except an AF of 1.00 (national unmodified average) is used for local vendor quotes. It is assumed that Subcontractor OSP is either included in the PC OSP or has been factored into vendor quotes or previous work.

It is essumed that home office OH is 5%, and field office OH is 10%. Profit of 6% is used for the Prime Contractor.

Abbreviations:

QTY quartity EA sect

EQUIP equipment

MATL meterial

HPF HTRW productivity factor ADJ LABOR editated labor for HFP

ADJ EQUIP adjusted equipment for HFP

UNMOD UC unmodified unit and

UNMOD LIC unmodified line item cost

EF escalation factor AF eres lector

UNBURILIC unburdened line item cost

PC OH prese contractor overhead.

PC PF prime contractor profit

BUR LIC turdened line item cost

TABLE CW2-7 Capital Cost Sub-Element Asbestos-Contaminated Soil Removal Date: 4/28/2003 A Rassas Prepared By: Libby Asbestos Location: Libby, Montana Phase: Base Year: 2003 Checked By: B. Cotton Date: 5/2/2003

York Statement:

This sub-claiment includes removal of extention conteminated soil from the perimeter of the building (44 BCY) and the crawl space (95 BCY)

e-contaminated and removal. I day for exterior removal and 2 days for crawl space removal.

						_						_								
DESCRIPTION	QTY	UNUT(S)	+	LABOR	ADJ LABOR	EQUIP	ECITIES	MATL	OTHER	UNMAGE UC	UNMACO LIC	Ø	AF	UNBURLIC	РС ОН	PC PF	BUR LIC		CITATION	COMMENTS
goven sof (interior and exterior)	140	BCY	0.56	\$0.00	\$0.00	\$0.93	\$1.69	\$0.00	\$0.00	\$1.60	\$237.04	1.04	1.13	\$277.34	(5%	65	\$344	¢.	2310 460 0020	Includes egypment cost only
action truck and driver	24	HRS	1.00	\$40.00	\$40.00	\$80.00	\$80.00	\$0.00	,\$0.00	\$120.00	\$2,880.00	1.00	1.00	\$2,680.00	15%	8%	\$3,577	Р		
aber for interior soil removal (4 taborers, 2 days)	64	иRS	1,00	\$31.05	\$31,05	\$2.00	\$0.00	\$0.00	\$0.00	\$31.05	\$1,987.20	1.04	1,13	\$2,325,02	15%	6%	\$2,686	c	Crew A-11	<u> </u>
Bor for Inserior golf (gmovel (1 foremen, 2 days)	16	HRS	1.00	\$31.55	\$31.56	\$0.00	\$0.00	\$0.00	\$0.00	\$31.56	\$504.80	1 04	1.13	\$590.02	15%	6%	\$734	c	Orem A-11	
abor for interior and namewal (1 site manager for 1 day)		HRS	1 00	\$31.55_	\$31 66	\$0.00	\$0.00	\$0.00	\$0.00	\$31.56	\$252,40	1,04	1.13	\$296.31	15%	8%	\$367	с	Crew A-11	
abor for extenor soil removal and replacement (4 storans, 1 day)	32	иRS	1.00	\$31.05	\$31.05	\$0.00	\$0.00	\$0.00	\$0.00	\$31.05	\$993.60	1.04	1.13	\$1,162.51	15%	6%	\$1,444	С	Crew A-11	
abor for exterior soil removal and replacement (1 reman, 1 day)		HRS	_1.00	\$31.56	\$31 56	\$0.00	\$0.00	\$0.00	\$0.00	\$31.56	\$252.40	1.04	1.13	\$296.31	15%	676	\$307	c	Crew A-11	
ebor for extenor soil namovaland replacement (1 site nameger for 0.5 day)	•	HRS	1.00	\$31.55	\$31.55	\$0.00	\$0.00	\$0.00	\$0.00	\$31.56	\$125.20	1.04	1.13	\$147.65	15%	8%.	\$183	ċ	Crew A-11	
nctassified F3), 6" lifts, off-site, includes delivery, preading, and compaction	61	LCY	0.55	\$0.00	\$0.00	\$1,66	\$3.38	\$5.30	\$0.00	\$8.68	\$441.89	1.00	1.13	\$512 69	55%	6%	\$837	R	17 03 0423	
														101	AL LIGHT C	ost:	\$10,541	1		

biginal:

Area factor is from Exhibit 6-2 of "A Guide to Developing and Documenting Cost Estatates During the Fessibility Study", EPA 2000.

Escalation factor is index from bose year of estimate divided by index from year of cost data.

Escalation indices are from Exhibit 6-1 of "A Guide to Developing and Documenting Cost Estimates During the Feesibility Study", EPA 2000, and http://www.enr.com/leatures/conEco/coet/indexes/defautt.esp

HTRW productivity factor is from Exhibit B-3 or B-4 of "A Guide to Developing and Documenting Cost Estimates During the Feasibility Study", EPA 2000

Source of Cost Date:

NA - Not Applicable - costs are from previous work or vendor quote

For estation references, the following sources apply:

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- Besid on Previous Work by CDM Federal, V - Vendor Quote, A - Allowance Assumed

- Average Professional Labor Rates for 2002 (Average Rates Compiled from Various State/Federal Public Contract Sources)

Cost Adhetment Checklist: FACTOR

H&S Productivity (lebor and equipment only)

Excatation to Base Year

Area Cost Factor Subcontractor Overhoad and Profit

Prime Contractor Overhead and Profit

NOTES:

Field work will be in Level "C" PPE. An HPF of 0.95 is used for labor and equipment unit costs that occur in contaminated proces

2001 cost courtes are escalated by 3% to 2003 costs (EF+1.03), 2000 cost sources - 4% (EF+1.04), 1995 cost courtes - 9% (EF=1.09), and 1995 cost courtes - 17% (EF=1.17).

An AF of 1,13 to used for Montana, except an AF of 1,00 (national unmodified average) is used for local vendor quotes

It is assumed that Subconfractor O&P is either included in the PC O&P or has been factored into vendor quotes or previous work.

It is assumed that home office OH is 5%, and field office OH is 10%. Profit of 6% is used for the Prime Contractor.

Abbredstone:

QTY quantity EA outs

EQUIP equipment MATL material

HPF HTRW productivity factor

ADJ LABOR adjusted labor for HFP ADJ EQUIP adjusted equipment for HFP

UNMOBUC upmodified surfl cost

UNMOD LIC unmodified time dem cost

EF executation factor

AF arms factor

UNBURILIC unburdened line flem cost

PC OH prime contractor overhead

PC PF prime confractor profit

BUR LIC burdened line item cost

Capital Cost Sub-Element

Transportation and Disposal

Libby Asbestos

Location: Libby, Montana

Phase: Base Year: 2003

Prepared By: A. Rassas

Date: 4/28/2003

Checked By: B Cotton

Date: 5/2/2003

This auto-element includes the storage, transporation and disposal of all contaminated meternal to the autoestos landfill.

Cost Analysis;

Asbeston Conteminated Meterial Disposal

		1			AGJ		404													_	•	
DESCRIPTION	QTY	UNIT(8)	HPF	LABOR	LABOR	EQUAP	EQUIP	MATL	OTHER	UROMOD UC	UNMOD LIC	EF	*	UNBUR LIC	PC OH	PC PF	BURLUC		CITATION		COMMENTS	3
Transpotation fee for Vecuum boxes to landfe)		EA	1.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$200.00	\$200.00	\$1,600 00	1.00	.100	\$1,800.00	15%	8%	\$2,238	P				
Asbestos Landilii Disposal, tipping fee	215	CY	1.00	\$0.00	\$0.00	\$0.00	\$0.00	\$32.00	\$0.00	\$32.00	\$8,885.09	1.00	100	\$8,895,00	16%	. 6%	\$6,564	Ρ				
				_						_				TOTA	IL UNIT CI	OST:	\$10,800					

Notes:

Area factor in from Eunibit 8-2 of "A Guide to Developing and Documenting Cost Estimates During the Feasibility Study". EPA 2000

Escalation factor is index from base year of estimate divided by index from year of cost data.

Excellation indicates are from Earthil 8-1 of "A Guide to Developing and Occumenting Cost Estimates During the Feesibility Study", EPA 2000, and http://www.em.com/feetures/conEcotostin/devest/defeut.esp

HTRW productively factor is from Exhibit B-3 or 8-4 of "A Guide to Developing and Documenting Cost Estimates During the Feasibility Study", EPA 2000

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- Average Professional Labor Rates for 2002 (Average Rates Compiled from Venous State/Federal Public Contract Sources)

Cost Arilystmest Checkfiel:

EACTOR:

H&S Productivity (letter and equipment only)

Escatation to Same Year

Area Cost Fector

Subcontractor Overhead and Profil

NOTES:

Field work will be in Level "C" PPE. An HPF of 0.95 is used for labor and equipment unit costs that occur in contaminated areas.

2001 cost sources are excelleted by 3% to 2003 costs (EF=1.03), 2000 cost sources - 4% (EF=1.04), 1990 cost sources - 9% (EF=1.09), and 1990 cost sources - 17% (EF=1.17).

An AF of 1,13 is used for Montane, except an AF of 1.00 (national gramophied everage) is used for local vendor quotes. It is easymed that Subcontractor OSP is either included in the PC OSP or has been factored (no vendor quotes or previous work.

Prime Contractor Overhald and Profil It is assumed that home office OH is 5%, and field office OH is 10%. Profit of 8% is used for the Prime Contractor. Abbre-fations:

EA each QTY quantity

EQUIP equipment

MATL material HPF HTRW productivity factor

ADJ LABOR adjusted fabor for HFP

ADJ EQUIP adjusted equipment for HFP

UNIMOD UC unmodified unit cost

UNIMOD LIC unmodified line item cost FF escalation factor

AF eres letter

UNBURILIC urburdered fire item cost

PC OH prime contractor overhead

PC PF prime contractor profil BUR UC burdened line item cost

Capital Cost Sub-Element

Site Breakdown

Site: Libby Asbestos

Cocation: Libby, Montana

Phase: Base Year: 2003

Work Statement

This sub-element includes cleaning and breaking down equipment following restoration.

Cost Analysis:

Site breakstown (2.5 days)

		r-		Γ	AQJ		ADJ													
DESCRIPTION	4	UNIT(S)	KPF	LABOR	LABOR	ÉQUE	_EQUIP	MATL	OTHER	UNMAN OF NO	_UNMOO UC	€F	AF	UNUBURIUC	PCOH	PC PF	BUR LIC	CITATE	ON	COMMENTS
Lattor for elle cleaning and breakdown (4 laborers for 2.5 days)	80	HRS	1,00	\$31,05	\$31.06	\$0.00	\$0.00	\$0,00	\$0.00_	\$31.05	\$2,464.00	1,04	1,13	\$2,908.28	19%	6%	\$3,810	C Crew A	-11	· · · · · ·
Labor for site cleaning and breefstown (5 forestan for 2.5 days)	20	HRS	1.00	\$31.55	\$31.65	\$000	\$0.00	\$0.00	\$0.00	\$31 56	\$631.00	1.04	1.13	\$738 27	15%	8%	\$917	C Grew A	L11 .	
Labor for elle cleaning and breakdown (1 alse manager for 1.25 days)	.10	HRS	1.00	\$31.56	\$31.55	\$200	\$0.00	\$0.00	\$0.00	\$31.56	\$3,15.50	1,04	1.13	\$369.14	15%	8%	\$458	C Crew A	E11 .	
					_									TOT	AL UNIT C	OST:	\$4,965			

TABLE CW2-9

Area factor is from Exhabit 8-2 of "A Guide to Developing and Documenting Cost Estimates During the Feasibility Study". EPA 2000

Escalation factor is index from base year of estimate divided by index from year of cost data.

Esculation indices are from Eghald B-1 of "A Guide to Developing and Documenting Cost Estimates During the Ferenblidy Study". EPA 2000, and http://www.enr.com/festimes/continde/sest/default.esp

HTRW productivity factor is from Exhibit B-3 or B-4 of "A Guide to Developing and Decumenting Cost Estimates During the Fessibility Study", EPA 2000

Source of Cost Date;

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P - Based on Previous Work by CDM Federal; V - Ventior Quote; A - Allowance Assumed

L - Average Professional Labor Rates for 2007 (Average Rates Compiled from Various State/Federal Public Constact Soumars)

NOTES.

Cost Adjustment Checklist:

FACTOR:

H&S Productivity (tabor and equipment only)

Excelsion to Base Year

Area Cost Factor

An AF of 1,13 to used for Montana, except an AF of 1,00 (national unmodified everage) is used for local vendor quisties. Subcontractor Overhead and Profit

It is assumed that Subcontractor OEP is either included in the PC OEP or has been factored into vendor quotes of previous work. It is assumed that home office OH is 5%, and field office OH is 10%. Profit of 8% is used for the Prime Contractor.

Field work will be in Level *C" PPE An HPP of 0.95 is used for labor and equipment unit costs that excur in contaminated areas.

Prime Contractor Overhead and Profit

Abbreviations:

EA sect.

A. Rassas

Date: 4/28/2003

Date: 5/2/2003

OTY QUARTEY EQUIP equipment

MATL meterial

HPF HTRW productivity factor

ADJ LABOR especial labor for HFP ADJ EQUIP adjusted equipment for HFP

Prepared By:

Checked By: 8. Cotton

UNIMOD UC unmodified unit cost

UNIMOD LIC unmodified line item cost

FF excelation factor

AF eres fector UNBURILIC unburdened line lien cost

PC OH prime contractor overhead

PC PF prime contractor profit

BUR LIC burdered line item cost

2001 cost sources are exceleted by 3% to 2003 costs (EF=1.03), 2000 cost sources - 4% (EF=1.04), 1998 cost sources - 9% (EF=1.09), and 1990 cost sources - 17% (EF=1.17).